

## REMARKS

Favorable reconsideration of this application is respectfully requested.

### **The Rejection Under 35 U.S.C. §112**

The rejection of Claims 41 and 46 under 35 U.S.C. §112, ¶ 1 is traversed. Both claims call for storing a transaction identifier by inserting information into a backend server database using an Internet cookie.

The Office's assertion that the claims are not enabled because a specification does not describe sufficiently the use of an Internet cookie for storing a transaction identifier in a backend server database is traversed. It is submitted that the description in the specification is more than sufficient to enable those skilled in the art to practice the invention in view of the widespread knowledge of the use of Internet cookies as identifiers in client-sever Web-based systems by those skilled in the art. This widespread knowledge is shown, for example, by published applications US 2002/0103712 to Rollins, et al. and US 2002/0073221 to Lin, et al., both of which were cited by the Office. Rollins describes the tracking and origin of transactions over a communications network using cookies (in paragraphs [0095]-[0112]), and Lin describes using cookies for identifying the address of a user in an Internet protocol session (in paragraph [0042]). These two published applications are merely representative of a large body of prior art that demonstrates that the use of Internet cookies as identifiers is well known to those skilled in the art.

The specification, beginning at the bottom of page 20, describes that the eTA system of the invention captures all Web interactions between a client and a server to

enable an interaction to be replayed to another backend Web server. At page 21, lines 4-12, the specification describes capturing actual conversation packets between a browser or client and the backend server, and identifying the session and/or transaction using a cookie. Furthermore, at page 23, lines 5-24, the specification describes extracting information comprising a session or transaction identifier from a captured package stream to query a package server about the state of the transaction, and describes at lines 16-18 that a way of associating a key with each transaction is to inject a cookie in each response to a user that contains key information that is used to identify a particular transaction.

It is respectfully submitted that these descriptions in the specification regarding the use of cookies in connection with the invention coupled with the knowledge of those skilled in the art regarding cookies is more than sufficient to enable one skilled in the art to practice the invention of Claims 41 and 46. Accordingly, reconsideration of the rejection of these claims is respectfully requested.

### **The Rejections of the 35 U.S.C. §102**

#### **Claims 14-15**

The rejections of Claims 14-15 under U.S.C. §102(e) as anticipated by Lin, et al., is traversed.

Independent Claim 14 is directed to a method of processing electronic transactions between a client and a server of a computer network and recites:

establishing a communications connection between the network client and the network server at an electronic transaction assurance (eTA) system

and initiating a series of processes at the eTA system, the processes including:

- a transaction monitoring process wherein the eTA system monitors electronic messages that are exchanged between the client and the server in relation to a transaction;

- a state capture process wherein the eTA system captures and records information descriptive of one or more states of the transaction;

- a failure detection process wherein the eTA system determines that a failure has occurred with respect to the transaction;

- an outcome determination process wherein the eTA system determines the extent to which the server has processed the transaction;

- a failure masking process wherein the eTA system masks the occurrence of the failure from the client;

- a transaction recovery process wherein the eTA system recovers the transaction from the failure.

Lin discloses a system for monitoring and recording communications sessions between users and application servers via Web servers using a load balancer that distributes requests among Web servers, and includes a state server and an associated database that stores data related to communication sessions for recovery in the event of a failure. Upon failure of a Web server, an application server may assign another Web server to take over the session. (See Abstract and paragraphs [0035] and [0047]).

Lin does not disclose or suggest either a process for determining the extent to which a server has processed a transaction, or a failure masking process that masks the occurrence of a failure from the client, as set forth in Claim 14. Rather, Lin discloses that in the event a connection between a server and a browser, i.e., a client, terminates, an application server may use the retained relevant session information from the state server to attempt to reconnect or assign a second

Webserver to continue the session. (See paragraphs [0035] and [0047]). Lin does not disclose or suggest at all determining the extent to which a transaction has been processed. Lin's detecting a failed connection or Webserver is not the same as determining the extent to which a server has processed a transaction, as claimed. Lin also does not disclose or suggest masking the occurrence of a failure from a client, as claimed. Rather, Lin only discloses using stored state information to attempt to reconnect or to assign a new server to continue a session in the event of a failure. Accordingly, since Lin fails to disclose at least two of the elements of the claim, Lin cannot anticipate Claim 14.

Claim 15 depends from Claim 14 and is deemed allowable for at least the same reasons Claim 14 is allowable.

### **The Rejections Under 35 U.S.C. §103**

The Office has rejected all of the remaining claims as obvious under 35 U.S.C. §103 over various combinations of ten different references. For reasons that will be set out below, these various rejections are all legally improper and are all traversed.

Before discussing the substantive teachings of the various references and their inability to render the claims considered as a whole obvious, the legal inadequacy of the rejections will be first discussed. It is submitted that the Office has failed to properly apply the references to the claims and to satisfy its burden of establishing a *prima facie* case of obviousness, and that the rejections cannot stand for these reasons alone.

MPEP §2111 provides guidance to examiners and discusses in detail the obligations of the Office in satisfying the legal requirements for a rejection under 35 U.S.C. §103 for obviousness. First, to support a rejection based upon obviousness, Section 103 requires that the claimed invention as a whole must be considered and rendered obvious by the prior art references. It is improper to focus on individual elements of a claim and assert that the elements are obvious based upon a combination of references, since this fails to consider the invention as a whole. Here, various small groups of the multiple references are applied to individual elements of the claims, and the individual elements are asserted to be obvious without any showing that all of the applied references may be combined and that the combination teaches or suggests the invention claimed as a whole. Second, in order to satisfy its burden of establishing a *prima facie* case of obviousness based upon a combination of references, the Office must point to some objective teaching in the references themselves or in the knowledge generally available to one of ordinary skill in the art that would lead that individual skilled in the art to combine the relevant teachings of the references in the manner claimed, without the hindsight gained from the applicant's specification. It is not enough to merely point to individual aspects of a claimed invention in references and assert that the combination renders these aspects obvious, as is done in the rejections here. There must be some motivation, suggestion, or teaching in the references themselves of the desirability of making the specific combination that is claimed. The Office has failed to satisfy this standard in combining the various references to make out the rejections. It is submitted that more is required than merely pointing to the existence of the individual elements of a

claimed combination in disparate references in order to make the claimed combination obvious from the references. The references themselves must teach or suggest the combination. Otherwise, the rejection is based upon hindsight that is gained from an applicant's own specification, and is improper.

**The Rejections of Claims 1-2, 4-5 and 8-10 Under 35 U.S.C. §103**

The rejection of claims 1-2, 4-5, and 8-10 as obvious over Davies, et. al., (U.S. 6,108,701) in view of Arora (U.S. 6,859,834) in view of Phaal (U.S. 6,138,159) and further in view of Lin, et., al., (U.S. 2002/0073211) is traversed.

**Claim 1:**

Independent Claim 1 recites:

establishing a communications connection between the network client and the network server at an electronic transaction assurance (eTA) system;

receiving a request message from the client at the eTA system, the request message relating to an aspect of the electronic transaction;

extracting data from the message to record a state of the electronic transaction;

detecting that a failure has occurred with respect to the transaction;

determining whether an outcome of the transaction in relation to the request message has succeeded or failed;

selecting an appropriate recovery action to recover from the failure;

transmitting a response message to the client in accordance with the recovery action, wherein the response message masks the failure from the client.

In its rejection, the Office asserts that Davies discloses a router which is equivalent to the "eTA system" since a message from a client is sent to an active server through the router, and that this meets the first two elements of Claim 1. The

Office admits that Davies does not disclose extracting data from the message to record a state of the electronic transaction, but asserts that Arora's disclosure of a server receiving request information is equivalent to determining the status of a request such as failure or success. The Office then asserts that it would have been obvious to combine Arora's "ideas" of determining the status of a request with Davies' system in order to discover a "broken connection" to provide connection failure recovery for uninterrupted connection.

There are several problems with the stated rejection up to this point. First, the Office has improperly failed to consider the invention of Claim 1 as a whole. Rather, it has combined Davies and Arora to assert the combination renders obvious the first three elements of Claim 1 in isolation without considering the remaining elements of the claim or without demonstrating that the remaining references taken with Davies and Arora together provide the required motivation or suggestion to combine. This is contrary to 35 U.S.C. §103 which requires that obviousness be determined with regard to a claimed invention as a whole, not to individual elements of the claimed invention, as pointed out above. Second, Davies' router is in fact merely a router through which messages are sent between an active server and a client. This router is not the equivalent to the eTA system of the claim, as asserted. The router of Davies simply routs messages. It does not perform the "extracting data from a request message" step of Claim 1. The Office recognizes this (see page 6 of the Office Action) in combining Davies with Arora in order to meet the "extracting data" element of Claim 1, but asserts that the combination of Davies and Arora renders obvious "discovering the status of a request to discover a broken connection. Apart

from the fact that this fails to consider the claim as a whole, Arora does not extract “data from a message from a client to a server to record a state of an electronic transaction”, as claimed, and combining the references does not teach this element.

Arora relates to enabling application server fail-over in a network, resulting, for example, from a broken connection (see Arora, column 2, lines 10-14). Aurora discloses that after sending a request to an application server, a requesting thread “sleeps” and then periodically wakes-up to poll the application server to determine whether the request has failed. Polling is performed by the requesting thread sending a message comprising “information identifying the request” to the application server, which server uses the information to determine the status of the request. (See Arora, column 5, lines 45-56).

Arora does not disclose or suggest “extracting data from a message relating to an aspect of an electronic transaction to record a state of the electronic transaction”, as claimed. Arora does not extract data from a message relating to an aspect of a transaction at all. Rather, Arora merely periodically polls an application server to determine whether a previous request has failed, e.g., because of a broken connection, not to extract data from the request to record a state of the electronic transaction.

Moreover, there is no teaching or suggestion in either Davies or Arora that would lead to combining the references in the manner suggested by the Office. In the absence of some explicit teaching in the references that would motivate one to



combine the references, it is submitted that the references cannot be combined as asserted.

The Office next recognizes that Davies-Arora does not teach or suggest the remaining elements of Claim 1 (pages 6-7 of the Office Action), and adds another reference, Phaal, to the Davies-Arora combination, asserting that Phaal's disclosure of detecting a failure in a network upon a failure to "respond within a predetermined period of time" is equivalent to the fourth element of the claim.

Phaal relates to a load direction mechanism that directs messages from a client computer to one or more host in a multiple host system. The instructions monitor the processing of messages from the client by a primary host computer, and detect a failure if the host computer fails to respond within a predetermined period or to respond to repeated message transmissions (see Phaal, column 2, lines 61-67).

Detecting a network failure, as taught by Phaal, has nothing to do with detecting that a transaction has failed, or with determining whether an outcome of a transaction in relation to a request message has succeeded or failed, as recited in 4<sup>th</sup> and 5<sup>th</sup> elements of Claim 1.

Moreover, in addition to the fact that the Office continues to improperly reject as obvious elements of Claim 1, as opposed to the claim as a whole, there is no disclosure or suggestion in either Davies, Arora or Phaal that these references may be combined as asserted by the Office. It is also not even clear as to how they would be combined to meet the claimed elements to which the Office asserts to references apply. Davies, Arora and Phaal disclose three different kinds of systems which have

different functions and problems, and the references address disparate issues.

There is no teaching or suggestion in any of the references that they may be combined, much less that they could be combined in the manner set forth in Claim 1.

Finally, the Office, recognizing that the combination of Davies, Arora and Phaal fails to meet the final element of the claim requiring “transmitting a response message to the client in accordance with the recovery action” that “masks the failure from the client”, adds a fourth reference, Lin, to the combination of Davies, Arora and Phaal. As discussed above in connection with the rejection under 35 U.S.C. §102, Lin does not disclose or suggest transmitting a response message to a client that masks the failure of a transaction. Rather, all that Lin discloses is that upon detecting a loss of connection between a user and an application server, an attempt is made to reconnect the Webserver in order to continue the session and, if the Webserver is shut down, a second Webserver is assigned to continue a session. (See Lin [0035]). This does not disclose or suggest a message which masks a failure. At most, Lin only discloses monitoring a connection to detect a failure, and then attempting to reestablish a connection.

It is noted that the Office in its rejection of Claim 1 has failed to address at all or otherwise demonstrate that the references teach the 6<sup>th</sup> element of the claim requiring “selecting an appropriate recovery action to recover from the failure (of the transaction)”. Thus, the rejection fails to consider all elements of Claim 1, and is improper for this reason also.

Accordingly, in view of the foregoing it is respectfully submitted that Davies, Arora, Phaal and Lin do not teach or suggest the claimed invention, and do not render Claim 1 obvious. Further, the references cannot be combined in the manner suggested by the Office, and even if they were combined, the combination would not produce the invention set forth in Claim 1. Therefore, the rejection of Claim 1 as obvious over these references is improper and should be withdrawn.

#### Claims 2, 4-5 and 8-10

Claims 2, 4-5 and 8-10 depend directly or indirectly from Claim 1 and are deemed to be allowable over Davies, Arora, Phaal and Lin for at least the same reasons Claim 1 is allowable. Moreover, it is respectfully pointed out to the Office that Claim 4 and 5 depend from Claim 3, which was not rejected on the same combination of references, and the rejection of Claims 4 and 5 is improper for this reason also.

#### The Rejection of Claim 3

The rejection of dependent Claim 3 over the combination of Davies, Arora, Phaal, Lin and further in view of Wallach (US 6,292,905) is traversed.

Wallach discloses a fault tolerant network with distributed servers, each having a replicated copy of a network directory database, and processes to remap clustered network resources from a primary server in the event of a failure to another server. The servers maintain replicated copies of a network directory database of network resources to enable the remapping.

The replicated databases of Wallach relate a network directory and to the structure of the network and map network resources. The network directory of Wallach has nothing to do with a database storing transaction models, or with identifying a transaction type by selecting a model from the database, as set forth in Claim 3. Wallach teaches nothing with respect to Claim 3, and cannot alone or in combination with the other references render Claim 3 obvious. Accordingly, the rejection of Claim 3 is improper and should be withdrawn.

It is noted that Claim 4 and 5 which were rejected above in connection with Claim 1 actually depend from Claim 3 and incorporate the limitations of Claim 3. Accordingly, these claims are also allowable for the same reasons Claim 3 is allowable.

#### Claims 6-7 and 12-13

The rejection of Claims 6-7 and 12-13 is traversed. These claims depend from independent Claim 1, and are deemed to be allowable for the reasons discussed above that Claim 1 is allowable. Moreover, these claims recite additional limitations that are not disclosed or suggested by the combination of Davies, Arora, Phaal or Lin.

In particular, Claim 7 recites that a failure occurs with respect to the transaction when an error code is contained within a response message from the server. Nothing in any of the cited references discloses or suggests “error codes” in response messages from a server to indicate a failure of a transaction.

Claim 12 recites that the “response message masks the failure from the client such that the client is oblivious to the failure”. Claim 13 recites that the “response message masks the failure from the client such that the client is compensated for the failure”. As pointed out above, neither Lin nor any of the other references discloses or suggests masking of failures, much less using a response message as a vehicle for masking a failure. Accordingly, Claims 12 and 13 are deemed allowable over the cited prior art.

### **The Rejection of Claim 11**

Claim 11 depends from Claim 1, and is allowable over the cited prior art for the same reasons discussed above with respect to Claim 1. Furthermore, the Office's combination with Davies, Arora, Phaal and Lin of two additional references to Tanner (US 2002/0070976) and Rollin (US 2002/0103712) brings the total combination of references used by the Office to reject Claim 11 to six. It is respectfully submitted that it is unrealistic that these six separate references all individually teach or suggest their combination with the remaining references in the manner asserted by the Office, and that they do not. For this reason alone, the rejection of Claim 11 is improper.

Tanner discloses an electronic commerce system that enables a user to conduct transactions without compromising the user's personal identity (see paragraph [0032]) by enabling the user to employ a privacy card or a digital wallet (see paragraph [0033]). Rollin discloses an Integrated Order Management system for pre-filling order forms for transactions using information contained in a database.

Claim 11 calls for extracting data from a message to record the state of an electronic commerce transaction by recording the contents of a shopping cart. Nothing in either Tanner or Rollin, alone or in combination, teaches or suggests Claim 11. Tanner's e-commerce system and Rollin's integrated order mechanism bear no relationship to one another, and nothing in the two references suggests that they can be combined as asserted by the Office, much less be combined with the combination of the four references to Davies, Arora, Phaal and Lin. Moreover, even if combined, the references still fail to teach or suggest recording the contents of a shopping cart using data contained in a request message to record the state of a transaction, as claimed. Accordingly, Claim 11 is deemed allowable.

#### **The Rejection of Claims 16-18**

Claims 16-18 depend from independent Claim 14, and are deemed to be allowable for at least the same reasons that Claim 14 is allowable. Moreover, these claims include additional recitations which distinguish over the prior art.

Claim 16 recites that the failure detection process comprises monitoring for a failure code embedded in a response message from the server, where the failure code indicates a failure has occurred.

Claim 17 recites that the failure detection process (for determining that a failure has occurred with respect to the transaction) comprises monitoring for a response message from the server and deeming a failure has occurred if a response message is not received within a predetermined time span.

Claim 18 recites that the failure masking process comprises sending a response message to the client from the eTA system in the event of a failure, where the response message is the same response that the client would have perceived had the failure not occurred.

As an initial matter, it is pointed out to the Office that its rejections of Claims 16 – 18 based upon Lin in view of Phaal are improper because the rejections fail to consider the specific recitations of Claims 16 – 18 and fail to demonstrate that the references teach or suggest these specific recitations. Phaal's broad, conceptual "ideas" of determining whether a transaction has succeeded or failed cannot be extrapolated to meet the specific recitations of Claim 16 regarding a failure code, or to Claim 17's recitations of monitoring for a response message and deeming a failure has occurred if the response message is not received within a predetermined time, or to Claim 18's recitations that a failure masking process comprises sending a response message to the client that is the same response the client would have received had the failure not occurred. In the absence of specific teachings of these claim recitations in Phaal, and given the Office's recognition that Lin does not disclose these elements of the claims, the references will not support the rejections. Rejections of specific recitations in claims cannot be based upon broad conceptual "ideas" in a reference, but must be based upon specific disclosures in the reference which teach or suggest the language of the claims.

Accordingly, it is submitted that Lin and Phaal cannot be combined as asserted, and even if combined, would not produce the invention of Claims 16 - 18. Therefore, these claims are allowable over the references.

**The Rejections of Claims 19 - 32 Under 35 U.S.C. §103**

The various rejections of Claims 19 - 32 set out in paragraphs 7, 8, 9 and 10, pages 11-16, of the Office action are traversed.

**Claim 19**

Claim 19 is an independent claim from which Claims 20-32 depend either directly or indirectly. For the reasons that follow, it is submitted that the rejection of Claim 19 based upon Davies, Wallach and Phaal is improper and that the claim is allowable over these references, as are the claims which depend therefrom.

Claim 19 is directed to a method of processing network messages between a client and a server, and recites:

- establishing a communications connection between the network client and the network server at an electronic transaction assurance (eTA) system;

- receiving a network message at the eTA system, which is responsible for the communications between the network client and the network server;

- identifying a transaction type and message parameters included in the received network message, thereby defining an electronic transaction to which the message relates;

- preserving a state of the electronic transaction and updating the transaction type and message parameters in response to processing of the electronic transaction;

- indicating a detected failure in a network back-end system or the network communications connection in response to inspection of the content of a received response from back-end system servers or the lack of a received response within a predetermined time period;

- determining the correct outcome of the electronic transaction as affected by the detected failure and selecting an appropriate action to recover from the detected failure;

- providing a response message to the network client with an appropriate message to mask the detected failure;

- logging and reporting relevant information about the state and the message parameters of the electronic transaction.



Claim 19 is somewhat similar, in part, to Claim 1. For the reasons discussed above in connection with Claim 1, the router of Davies is not equivalent to the claimed electronic transaction assurance (eTA) system. The router does not perform functions recited in Claim 19. Moreover, as recognized by the Office, the router of Davies does not identify a transaction type and message parameters that define an electronic transaction, as claimed. Wallach does not make up for the deficiencies in Davies.

As previously described, Wallach discloses a fault tolerant network with distributed servers, each having a replicated copy of a network directory database, and processes to remap clustered network resources in the event of a primary server failure to other servers. The replicated database of Wallach does not store data relating to transactions, and contrary to the Office's assertion (on page 12) the replicated database of Wallach does not identify a transaction type and message parameters in a network message relating to an electronic transaction. Wallach further does not teach or suggest preserving the state of an electronic transaction or updating the transaction type and message parameters in response to processing of the electronic transaction; and does not log and report relevant information about the state and message parameters of an electronic transaction, as claimed. The mere fact that Wallach discloses a replicated database of a network directory for fail-over in the event of server failure has nothing to do with processing, identifying, preserving or logging and reporting transactions, as claimed, and, no logical combination of Davies and Wallach would produce these elements of Claim 19.

The Office's citation of Phaal adds nothing to the combination of Davies and Wallach with respect to the elements of Claim 19. Phaal discloses nothing with respect to determining the correct outcome of electronic transaction as affected by a detected failure and selecting an appropriate action to recover, as claimed, or with respect to providing a response message to mask the detected failure, as claimed.

Furthermore, there is no suggestion in any of the three references that their teachings may be combined as asserted by the Office, and it is only with the improper hindsight afforded by applicants' specification that such a suggestion is found. As previously discussed, the Office cannot selectively pick and choose isolated disclosures from prior art references and combine these disclosures using the hindsight provided by an applicant's own specification and claims in order to make out a rejection, as the Office has done here. Accordingly, Claim 19 cannot be rendered obvious by the references, and is patentable over these references.

#### Claims 20 - 32

Claim 20-32 depend directly or indirectly from Claim 19, and are deemed allowable over the cited prior art for at least the same reasons that Claim 19 is allowable. Furthermore, these claims set forth more specific aspects of the invention which also are neither disclosed nor suggested by the cited prior art.

Regarding the rejection of Claim 20 on Davies, Wallach, Phaal and Tanner, Tanner (US 2002/0070976), as noted above, relates to a system and method for enabling a user to conduct electronic commerce transactions without compromising the user's personal identity (see paragraph [0032]) by enabling the user to employ a

privacy card or a digital wallet (see paragraph [0033]). The reference does not disclose or suggest that a method such as defined in Claim 19 may employ a secure communications connection, as set forth in Claim 20.

As to Claim 21, Davies, Wallach and Phaal do not teach or suggest monitoring the operation of hardware and software components of the communication connection, as claimed. As to Claim 22, the references do not teach or suggest intercepting responses from a backend server, inspecting the enclosed messages to check for failures and formulating appropriate responses for sending to a network client, as claimed.

Regarding, Claim 24, the references do not teach or suggest training a transaction assurance system to classify and identify transaction types using a supervised machine learning technique, to enable the system to be deployed in different e-business environments with different transaction models, as claimed. Phaal discloses a hand-off server (at column 6, lines 30-50) that merely selects a host computer for serving a client. Contrary to the Office's assertion (on Office Action, page 14 ) this is not equivalent to classifying and identifying transaction types, much less doing so using a supervised machine learning technique, as claimed, and Phaal's "ideas" of determining whether a transaction has succeed or failed is irrelevant to Claim 24.

Claim 25 further recites that the transaction model defines expected network activity with respect to the associated type of transaction. Nothing in the references teaches or suggests the recitations of Claim 25, and no combination of the

references would produce the invention of Claims 24 and 25. Accordingly, these claims are deemed allowable over the prior art.

Claim 26, which depends from Claim 25, sets forth more specifically that the expected network activity comprises response messages that are expected from the server and response to request messages from the client. Claim 27 additionally calls for detecting a failure in a network backend system by comparing a response message from the backend system to an expected response message to find in a transaction model.

Claim 28 calls for determining an expected outcome of a transaction by determining an expected outcome that is defined in a transaction model.

Claim 29 calls for providing a response message to the network client with an appropriate message to mask the detected failure by using a response message that is defined in a transaction model.

Claim 30 sets forth that the transaction model defines suspicious activity and additionally comprises determining that fraudulent activity is present when the suspicious activity is encountered in a transaction.

Claim 31 calls for the transaction model to define a billing charge for a type of transaction and comprise tabulating billing charges based upon the number of times that an actual transaction defined in a transaction model is encountered. The bill-charging device of Yanagidate (US 2002/0099632), referred to by the Office in paragraph 9, page 15 of the Office Action, is for controlling the connections of the subscriber terminals to the internet (see Yanagidate, Abstract) and has nothing to do

with, nor discloses anything with respect to, a transaction model that defines a billing charge for a type of transaction, as claimed in Claim 31<sup>1</sup>.

### Claim 32

Claim 32 calls for the method of Claim 19 to permit resumption of communication with wireless clients when the wireless clients reconnect to the system without having to resubmit requests that were made prior to disconnecting due to losing a wireless signal. Lin does not teach or suggest (at [0071], as asserted by the Office), resumption of wireless communications without having to resubmit requests. Wallach also does not pertain to wireless communications, and does not teach or suggest anything with respect to resumption of interrupted communications without resubmitting requests. Wallach, at column 2, lines 33-35 referred to by the Office, discusses the problem with mirroring in a fault tolerance system and the need to avoid the complexity and cost of additional standby hardware. Wallach does not disclose or suggest anything with respect to resuming communication with wireless clients without having to resubmit requests upon a wireless client reconnecting to a system following loss of a wireless signal, and will not support the rejection of Claim 32.

For the foregoing reasons, it is respectfully submitted that the cited prior art to Davies, Wallach, Phaal, Tanner, Lin and Yanagidate neither teaches nor suggests, individually or in any combination, the invention set forth in Claims 19 - 32, and that these claims are allowable over this prior art.

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<sup>1</sup> It is pointed out that paragraph 9), page 15 of the Office Action incorrectly refers to Claims 36 and 26, whereas the Examiner's rejection appears to relate to Claim 31, and it is assumed that this was the intended reference.

**The Rejections of Claims 33-36 Under 35 U.S.C. §103**

The rejection of independent Claim 33 as unpatentable over Davies in view of Kashyap (US 2002/0087912) is traversed. Claim 33, is directed to an electronic transaction assurance system and recites:

a communications processor that receives electronic transaction messages over a computer network between a customer at a client node and a server node; and

a policy-based policy manager engine that manages electronic transaction message processing and resulting customer experience by allowing users of the system to define message processing policies that specify conditions and actions to be taken when any of the specified policy conditions is true to provide transparent failover.

As recognized by the Office (on page 16), Davies does not disclose a policy-based policy manager engine that manages electronic transaction messages by allowing users to define message processing policies that specify conditions and actions to be taken when a specified policy condition is true for transparent fail-over. While Kashyap discloses a method and system for failing-over TCP connections among peer systems without loss of connectivity or data, there is no disclosure or suggestion in Kashyap of a policy-based policy manager engine that allows users to define message processing policies, as claimed, and the Office's assertion that Kashyap's fail-over policy is equivalent to that claimed is unsupportable. Kashyap neither teaches nor suggests allowing users to define message processing policies, much less those that provide transparent failover, as claimed. Kashyap discloses (at paragraph [0041]) a fail-over policy in which the system with the numerically smallest cluster node ID takes over, or alternatively, that the master node in a cluster

designates the owner when a system goes down, or that an implementation-specific election algorithm can be employed. Nothing in the reference discloses or suggests a user-defined message processing policy for transparent fail-over, as claimed.

#### Claim 34

Claim 34 further sets forth that the policy-manager engine masks computer network failures. For reasons previously discussed, neither Phaal nor any of the other references cited by the Office teach or suggest masking of failures. Rather, it is again pointed out that Phaal merely discloses a fail-over mechanism where in the event of a failure, either a re-connection request is initiated or a new server is designated to take over. (See Phaal, column 2, line 61-column 3, line 7.) Davies, Kashyap and Phaal do not disclose or suggest masking computer network failures by generating messages to keep a customer informed of processing delays and engaged in a message dialogue, as claimed, and cannot render Claim 33 unpatentable as obvious.

Claim 35 calls for the eTA system to include multiple eTA nodes; and Claim 36 sets out that at least one policy-manager engine includes a transaction model formulated and built to enable processing and storing of transactions states and sharing state information with other eTA nodes. Nothing in Davies, Kashyap or Phaal teach or suggest these elements. Accordingly, Claims 35 and 36 are deemed allowable over the cited prior art.

**The Rejection of Claims 37- 42 and 53-54 Under 35 U.S.C. §103**

The rejection of Claims 37-42 and 53-54 as unpatentable over Davies, Wallach and Lin is traversed.

Independent Claims 37, 53 and 54 are substantially similar claims. Claim 37 is directed to a method for determining the outcome of an electronic transaction, Claim 53 is directed to a program product for use by a processor that executes a program substantially as set forth in Claim 37, and Claim 54 is directed to a system that determines the outcome of an electronic transaction that includes processes that executes program instructions to cause a processor to perform a method substantially as set forth in Claim 37. For the reasons discussed above in connection with the rejection of independent Claims 1, 14 and 19, the router of Davies is not equivalent to the claimed eTA system, and does not perform the claimed functions of the eTA system. Rather, it merely serves to relay messages between clients and servers.

As also discussed above, the replicated database of Wallach that provides a network directory of clustered resources has no function with respect to identifying transaction types and message parameters in network messages, and, contrary to the Office's assertion, discloses or suggests nothing in this regard. Wallach's disclosure of a replicated database does not justify the unsupported assertion made by the Office that this reference suggests identifying transaction types and message parameters in received network messages. Nor does the reference disclose or suggest, as asserted by the Office, generating and storing transaction identifiers



associated with electronic transactions, or preserving the state of an electronic transaction by updating transaction type message parameters in response to processing electronic transactions, as claimed. Nothing in Wallach even remotely discloses or suggests any of these claimed elements, and the Office's assertion to the contrary is pure speculation and unsupportable.

Accordingly, the rejections of independent Claims 37 and 53-54 are improper, and these claims are deemed allowable over the cited prior art. Claims 38-42, which depend from Claim 37, are deemed to be allowable for at least the same reasons.

**The Rejection of Claims 43-50 and 55-56 Under 35 U.S.C. §103**

The rejection of Claims 43-50 and 55-56 is traversed. Independent Claims 43, 55 and 56 are substantially similar claims. Claim 43 is directed to a method for measuring the end-to-end response time of electronic transaction messages; Claim 55 is directed to a program product for use in a processor that executes program steps corresponding substantially to the method of Claim 43; and Claim 56 is directed to a system comprising one or more processors that execute program instructions that perform substantially the method of Claim 43. For the reasons which follow, none of the prior art to Phaal, Wallach or Lin, individually or in any combination teaches or suggests the invention in Claims 43-50 and 55-56, and it is submitted that the rejections of these claims are improper.

Contrary to the Office's assertion, Phaal, neither teaches nor suggests receiving a network message from a client comprising a request for a Web page that identifies a transaction type and message parameters, or adding code to a Web page

that records the times when a client's request is sent to indicate the start of an electronic transaction and when a response is received by the client to indicate the end of a transaction, as claimed. Phaal (at column 4, lines 19-46 referred to by the Office) describes a computer system in which a request for access to a Web site is transmitted through nodes which use URLs, and where a Web page may permit a client to select from one or more available servers. This has nothing to do with network messages that include a request for a Web site page and that identifies a transaction type and message parameters, nor to adding code to a Web page that records times when requests are sent and responses are received, as claimed. The Office's assertion that Phaal's disclosure of detecting failure in a network upon failure to respond is not relevant and teaches nothing with respect to these claimed elements.

Lin and Wallach also neither individually or in combination teach or suggest, as asserted by the Office, generating a transaction identifier associated with each electronic transaction received from a client, and storing the transaction identifier information with the transaction type and message parameters at a backend database, as claimed. Even assuming the Office's characterization of Lin's session ID is correct that it is equivalent to a transaction identifier, Wallach's replicated network directory database does not store information related to transactions, but rather to network resources, and together Lin and Wallach do not teach or suggest generating and storing a transaction identifier, as claimed.

Finally, Wallach does not disclose preserving a state of an electronic transaction and updating transaction type and message parameters, as *claimed*.

Wallach's backend database, as previously described, comprises a network directory database of network resources, and does not store transaction data.

In view of the foregoing, it is respectfully submitted that independent Claims 43, 55 and 56 cannot be rendered unpatentable by the cited prior art, and that these claims are allowable.

Claims 44-50 depend directly or indirectly on independent Claim 43, and are deemed to be allowable for at least the same reasons. Moreover, these claims include recitations that are similar to recitations of other claims which were addressed above in connection with other rejections, and are allowable over the prior art for the same reasons.

### **Conclusion**

In view of the foregoing, it is respectfully submitted that all rejections of Claims 1-56 are improper, and that the claims are allowable over the prior art of record. Thus, this application is deemed to be in condition for allowance and early allowance of all claims is solicited.

The status of the patent applications referenced in the specification has been updated.

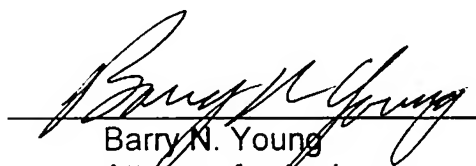
Enclosed is a Petition for Extension of Time extending the time for response by one month to July 21, 2006.

**WITHDRAWAL OF CLAIM TO SMALL ENTITY STATUS**

This application has been assigned to EMC Corporation, a Large Entity.  
Accordingly, the previous claim to Small Entity status is withdrawn.

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Respectfully Submitted,

  
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